

Zentralblatt für Mikrobiologie

Begründet 1895 als Zentralblatt für Bakteriologie,
Parasitenkunde, Infektionskrankheiten und Hygiene
Zweite – naturwissenschaftliche – Abteilung

**Agriculture
Biotechnology
Food Technology
Environment**

Band 147 · 1992

Alle Rechte vorbehalten
Printed in Germany

Inhaltsverzeichnis/Contents

(Mit B versehene Seitenzahlen weisen auf Buchbesprechungen hin)

Abd-El-Fattah, A. M. M., s. El-Shayeb, N. M. A.	86
Abdel-Fattah, A. F., s. El-Shayeb, N. M. A.	563
Abdel-Fattah, H. M., s. Moubahser, A. H.	259
Abdel-Hafez, A. I. I., and Khallil, A. M.: Occurence of zoosporic and other moulds in water and mud from slaughterhouse and tanyard at Assiut, Egypt.	513
Abdel-Rahman, T. M. A.: Effect of the fungicide benomyl on cell wall degradation by some fungi.	329
Adhya, T. K., s. Jena, P. K.	340
Arnaud, A., s. Duran, R.	499
Attia, R. M., s. Demerdash, M.	297, 477
Augustin, J., s. Merbach, W.	B 536
Badawi, A. M., s. El-Mokedem, M. T.	119
Bagnoli, G., s. Filippi, C.	345
Bagy, M. M. K.: Saprophytic and keratinophilic fungi isolated from desert and cultivated soils continuously exposed to cement dust particles in Egypt.	418
Bagy, M. M. K., Khallil, A. M., and Obuid-Allah, A. H.: Fungi inhabiting some aquatic macro-invertebrates and water plants of the Nile at Egypt.	459
Bemmann, W., and Kuschel, A.: The start of the synthesis of giberellic acid by the fungus strain <i>Gibberella fujikuroi</i> K 91-9.	221
Berger, R., s. Roth, P.	409
Birnbaum, D., s. Büttner, R.	225, 291
Bode R., s. Hammer, T.	65
Bode R., s. Büttner, R.	225, 291
Boominathan, K., and Mahadevan, A.: Degradation of protocatechuic acid by <i>Pseudomonas solanacearum</i> .	483
Büttner, R., Bode, R., and Birnbaum, D.: Alcoholic fermentation of starch by <i>Arxula adeninivorans</i> .	225
Büttner, R., Bode, R., and Birnbaum, D.: Purification and characterization of trehalase from the yeast <i>Arxula adeninivorans</i> .	291
Canganella, F., Zirletta, G., Gualterio, L., Massa, S., and Trovatelli, D.: Anaerobic facultative bacteria isolated from the gut of rabbits fed different diets.	537
Chakrabarty, D., s. Jana, B. B.	134
Chan Kwo Chion, C. K. N., s. Duran, R.	499
Chandra, A. K., s. Pati, B. R.	435
Chmiel, H., s. Reuss, M.	B 282
Chopra, S., Mehta, A., Maheshwari, D. K., and Mehta, P.: Inhibitory effect of indole compounds on the production of cell wall degrading enzymes by <i>Aspergillus niger</i> .	35
Chopra, S., s. Mehta, A.	557
Cigáneková, V., and Kallová, J.: Antibacterial activity of N-[2-(dodecanoylmethylamine)ethyl]-alkyldimethyl ammonium bromides.	71
Curtis, A. S. G., and Lackie, J. M.: Measuring cell adhesion.	B 387
Ded, J., s. Frýdová, B. H.	103
Demerdash, M., and Attia, R. M.: Equilibrium kinetics of D-glucose to D-fructose isomerization catalyzed by glucose isomerase enzyme from <i>Streptomyces phaeochromogenus</i> .	297
Demerdash, M., and Attia, R. M.: Thermal deactivation kinetics of CM-cellulase from a local isolate of <i>Aspergillus niger</i> (RD-2231).	477
Domey, S.: Vorkommen phosphatmobilisierender Bakterien in der Rhizosphäre landwirtschaftlicher Kulturpflanzen bei mittlerer bis hoher Phosphor-Versorgung des Bodens.	270
Drauschke, G., und Neumann, W.: Untersuchung des Schadstoffeinflusses auf den Prozeß der mikrobiellen Methanerzeugung aus Rindergülle.	308
Duran, R., Chan Kwo Chion, C. K. N., Arnaud, A., and Galzy, P.: Isolation of promoter sequences from <i>Brevibacterium</i> sp. R 312.	499
El-Abyad, M. S., El-Sayed, F. A., and Hafez, M.: Effect of culture conditions on amylase production by some soil fungi.	23

El-Din, A. A. K., s. Yousseff, Y. A.	80
El-Gamal, M. S.: Interactions between <i>Azotobacter</i> spp. and <i>Rhizobium sesbani</i> into the rhizosphere of <i>Sesbania sesban</i> (L.) Merrill plants and its efficiency on growth and symbiotic nitrogen fixation.	112
El-Gendy, Z. K., s. El-Naghy, M. A.	214
El-Mokadem, M. T., and Badawi, A. M.: Effect of <i>Azospirillum</i> inoculation of the amino acid content in roots and shoots of wheat, barley, peas and lupin.	119
El-Naghy, M. A., Maghazy, S. N., Fadl-Allah, E. M., and El-Gendy, Z. K.: Fungistatic action of natural oils and fatty acids on dermatophytic and saprophytic fungi.	214
El-Naghy, M. A., s. Moubasher, A. H.	529
El-Sayed, F. A., s. El-Abyad, M. S.	23
El-Shayeb, N. M. A., Mabrouk, S. S., and Abdel-Fattah, A. M. M.: Production of ochratoxins by some egyptian <i>Aspergillus</i> strains.	86
El-Shayeb, N. M. A., Mabrouk, S. S., Ismail, S. A., and Abdel-Fattah, A. F.: Production of fungal enzymes with special reference to β -glucosidases.	563
Fadl-Allah, E. M., s. El-Naghy, M. A.	214
Feuerpfel, I., s. Stelzer, W.	231
Fiedler, S., und Sattler, K.: Hydrophobie und mikrobielle Leistung 2. Bestimmung des Hydrophobiegrades oleophiler Mikroorganismen.	5
Fiedurek, J., Ilczuk, Z., Łoborzewski, J., and Pleszczyńska, M.: Optimization of pectinolytic enzymes biosynthesis by immobilized mycelium of <i>Aspergillus niger</i> 71.	15
Filippi, C., and Gagnoli, G.: A relation between nitrogen deficiency and protective effect against tracheofusariosis (<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i>) in carnation plants.	345
Fox, A., Morgan, S. L., Larsson, L., Odham, G.: Analytical microbiology methods.	B 172
Frede, W.: Taschenbuch für Lebensmittelchemiker und -technologien, Band 1.	B 440
Freytag, H. E., und Merbach, W.: Einfluß der Erhitzung durch Mikrowellen auf die CO ₂ -Abgabe aus einem Torfsubstrat.	304
Frýdová, B., Jenčová, D., Máchová, M., and Děd, J.: Rhizobia to <i>Galega officinalis</i> L.	103
Galzy, P., S. Duran, R.	499
Gamati, S. Y., s. Ghanem, K. M.	283
Ghanem, K. M., Sabry, S. A., and Gamati, S. Y.: Physiological study on riboflavin production by hydrocarbon-utilizing <i>Candida guilliermondii</i> Wickerham.	283
Ghareib, M., Youssef, K. A., and Nour El Dein, M. M.: Effect of alkali pretreatment on degradation of some cellulosic wastes by <i>Aspergillus sydowii</i> .	551
Ghareib, M., and Nour El Dein, M. M.: Purification and general properties of xylanase from <i>Aspergillus terreus</i> .	569
Gierz, R., s. Naumann, K.	355
Gilles, E.-D., s. Reuss, M.	B 282
Głowacka, M.: Enhanced efficiency of symbiotic nitrogen fixation by a derivative of <i>Rhizobium meliloti</i> .	192
Grant, W. D., s. Horikoshi, K.	453
Gualterio, L., s. Canganella, F.	537
Haasmann, S., s. Pilgrim, H.	400
Hafez, M., s. El-Abyad, M. S.	23
Hammer, T., and Bode, R.: Enzymatic production of α -amino adipate- δ -semialdehyde and related compounds by lysine ϵ -dehydrogenase from <i>Candida albicans</i> .	65
Hassanein, S. M., s. Youssef, Y. A.	80
Hemida, S. K.: Thermophilic and thermotolerant fungi isolated from cultivated and desert soils, exposed continuously to cement dust particles in Egypt.	277
Höflich, G.: Wechselbeziehungen zwischen phytoeffektiven Pseudomonas-Bakterien und dem Wachstum von Kulturpflanzen.	182
Höflich, G., und Weise, I.: Effektivitätserhöhung der <i>Rhizobium</i> -Inokulation bei Erbse durch Kombination von <i>Rhizobium leguminosarum</i> biovar. <i>viceae</i> mit <i>R. leguminosarum</i> biovar. <i>trifolii</i> .	378
Horikoshi, K., and Grant, W. D.: Superbugs. Microorganisms in extreme environments.	453
Ilczuk, Z., s. Fiedurek, J.	15
Ismail, M. A., s. Shoreit, A. A. M.	541
Ismail, S. A., s. El-Shayeb, N. M. A.	563

Jacob, J., and Stelzer, W.: Comparison of two media for the isolation of thermophilic <i>Campylobacters</i> from waste waters of different quality.	41
Jacob, J., s. Stelzer, W.	45, 231
Jana, B. B., and Chakrabarty, D.: Phosphate solubilizing activity in waters treated with composted phosphate rock.	134
Jarošík, V., s. Kováčiková, E.	405
Jena, P. K., Adhya, T. K., and Rao, V. R.: Nitrogen fixation in <i>Azospirillum</i> sp. isolated from rice roots and soils as influenced by carbofuran and combined nitrogen.	340
Jenčová, D., s. Frýdová, B. H.	103
Kallová, J., s. Cigáneková, V.	71
Kaszubiak, H., and Muszyńska, M.: The occurrence of obligatorily oligotrophic bacteria in the soil.	143
Kegler, H., s. Spaar, D.	157
Khallil, A. M., s. Bagy, M. M.	459
Khallil, A. M., s. Abdel-Hafez, A. I. I.	513
Khare, V., s. Mehta, A.	557
Knackmuss, H.-J., s. Reuss, M.	B 282
Köhler, M., s. Schöler, D.	150
Kováčiková, E., and Jarošík, V.: Red clover response to <i>Fusarium oxysporum</i> and <i>F. solani</i> , causal agents of crown and root rots.	405
Kralova, M., Masscheleyn, P. H., and Patrick, jr., W. H.: Redox potential as an indicator of electron availability for microbial activity and nitrogen transformations in aerobic soil.	388
Kriegelsteiner, G. J.: Verbreitungsatlas der Großpilze Deutschlands (West).	B 476
Krishnaraj, P. U., and Sreenivasa, M. N.: Increased root colonization by bacteria due to inoculation of vesicular-arbuscular mycorrhizal fungus in chilli (<i>Capsicum annum</i>).	131
Krishnaraj, P. U., s. Sreenivasa, M. N.	126
Kulkarni, S., s. Sreenivasa, M. N.	509
Kumar, M., and Prasad, M.: Organic nitrogen metabolism of crucifer seedlings in relation to their responses towards <i>Xanthomonas campestris</i> pv. <i>campestris</i> .	92
Kumar, M., and Prasad, M.: Cellulase production in varied crucifer seedlings having susceptible and resistant response towards <i>Xanthomonas campestris</i> pv. <i>campestris</i> .	167
Kuschel, A., s. Bemann, W.	221
Lackie, J. M., s. Curtis, A. S. G.	B 387
Larsson, L., s. Fox, A.	B 172
Lauková, A., and Marounek, M.: Physiological and biochemical characteristics of staphylococci isolated from the rumen of young calves and lambs.	489
Lepom, P., s. Müller, M.	197
Łobarzewski, J., s. Fiedurek, J.	15
Lüth, P., Pfeffer, H., und Schulz, R.-R.: Der Einfluß verschiedener Pilzarten und -isolate auf die Apothecienbildung von <i>Sclerotinia sclerotiorum</i> unter simulierten Frühjahrsbedingungen.	368
Mabrouk, S. S., s. El-Shayeb, N. M. A.	86
Mabrouk, S. S., s. El-Shayeb, N. M. A.	563
Máčková, M., s. Frýdová, B. H.	103
Maghazy, S. N., s. El-Naghy, M. A.	214
Maghazy, S. M., s. Moubasher, A. H.	529
Mahdevan, A., s. Boominathan, K.	483
Maheshwari, D. K., s. Chopra, S.	35
Malkomes, H. P.: Die Nitrifikation als ökotoxikologischer Indikator für Agrochemikalien im Boden bei variierten Testbedingungen.	250
Marounek, M., s. Lauková, A.	489
Massa, A., s. Canganella, F.	537
Masscheleyn, P. H., s. Kralova, M.	388
Mehta, A., Chopra, S., Kare, V., and Mehta, P.: Influence of native carbon sources on the production of pectolytic and cellulolytic enzymes by <i>Fusarium oxysporum</i> and <i>Fusarium moniliforme</i> .	557
Mehta, A., s. Chopra, S.	35
Mehta, P., s. Chopra, S.	35
Mehta, P., s. Mehta, A.	557

Merbach, W., Augustin, J., Meyerhöfer, K.: Ökophysiologie des Wurzelraumes.	B 536
Merbach, W., s. Freytag, H. E.	304
Meyerhöfer, K., s. Merbach, W.	B 537
Minguzzi, A., s. Turtura, G. C.	51
Morgan, S. L., s. Fox, A.	B 172
Moubasher, A. H., El-Naghy, M. A., Abdel-Fattah, H. M., and Maghazy, S. M.: Keratinolytic fungi in egyptian soils. I. Baited with hair and wool.	529
Müller, M., und Lepom, P.: Nachweis von <i>Alternaria</i> -Mykotoxinen in Laborkulturen.	197
Müller, M.: Toxinbildungsvermögen von Schimmelpilzen der Gattung <i>Alternaria</i> .	207
Muzyńska, M., s. Kaszubiak, H.	143
Naumann, K., und Gierz, R.: Zur Besiedlung von Apfelblättern, -blüten und -zweigen mit epiphytischen Mikroorganismen.	355
Nefisa, M. A. El-Shayeb, S. El-Shayeb, N. (Nefisa) M. A.	563
Neumann, W., s. Drauschke, G.	308
Nirmalnath, P. J., s. Sreenivasa, M. N.	509
Nour El Dein, M. M., s. Ghareib, M.	551, 569
Obuid-Allah, A., s. Bagy, M. M.	459
Odham, G., s. Fox, A.	B 172
Osteroth, D.: Taschenbuch für Lebensmittelchemiker und -technologen, Band 2.	B 562
Pati, B. R., and Chandra, A. K.: Nitrogen fixing potentialities of the phyllospheric bacteria in relation to concentration of sucrose in the medium.	435
Pati, B. R.: Effect of spraying nitrogen fixing phyllospheric bacterial isolates on rice plants.	441
Patrick, jr. W. H., s. Kralova, M.	388
Pfeffer, H., s. Lüth, P.	368
Pilgrim, H., Haasmann, S., und Schröder, K.: Trypsininhibitoraktivität in Basidiomyceten.	400
Pleszczynska, M., s. Fiedurek, J.	15
Prasad, M., s. Kumar, M.	92, 167
Rao, V. R., s. Jena, P. K.	340
Reuss, M., Chmiel, H., Gilles, E.-D., Knackmuss, H.-J.: Biochemical Engineering – Stuttgart.	B 282
Richardson, M. D., s. Warnock, D. W.	B 82
Roth, P., Sattler, K., Berger, R., Vinz, M.: Hydrophobie und mikrobielle Leistung III. Entfärbung, Detoxifikation und Abbau von Triphenylmethanfarbstoffen.	409
Różycki, H.: Effect of heavy metals (Pb, Zn, Cu and Cd) on germination of conidia of <i>Cylindrocarpon destructans</i> (Zinssm.) Scholten.	261
Ruppel, S., s. Scholz-Seidel, C.	319
Ruttloff, H.: Lebensmittelbiotechnologie.	B 454
Saad, R. R.: Effect of water activity on growth and lipids of xerophilic fungi, <i>Aspergillus repens</i> and <i>Aspergillus amstelodami</i> .	61
Saad, R. R.: Fungi of biodeteriorated paint film and their cellulolytic activity.	427
Sabry, S. A., s. Ghanem, K. M.	283
Sattler, K., s. Fiedler, S.	5
Sattler, K., s. Roth, P.	409
Schenk, G., s. Spaar, D.	157
Schmid, I., und Schmid, H.: Ascomyceten im Bild. 1. und 2. Serie.	B 488
Schmid, H., s. Schmid, I.	B 488
Scholz-Seidel, C., and Ruppel, S.: Nitrogenase- and phytohormone activities of <i>Pantoea agglomerans</i> in culture and their reflection in combination with wheat plants.	319
Schröder, K., s. Pilgrim, H.	400
Schüler, D., and Köhler, M.: The isolation of a new magnetic spirillum.	150
Schulz, R.-R., s. Lüth, P.	368
Schulze, E., s. Stelzer, W.	231
Shoreit, A. A. M., and Ismail, M. A.: Bacillus species associated with wheat and sorghum dusts from combine harvester.	541
Singh, C. S.: Mass inoculum production of vesicular-arbuscular (VA) mycorrhizae: I. Selection of host in the presence of <i>Azospirillum brasilense</i> .	447

Singh, C. S.: Prevalence of <i>Azospirillum</i> within the stem nodules of <i>Aeschynomene</i> spp. and <i>Neptunia</i> sp.	455
Singh, C. S.: Mass inoculum production of vesicular-arbuscular (VA) mycorrhizae: II. Impact of N ₂ -fixing and P-solubilizing bacterial inoculation on VA-mycorrhiza.	503
Spaar, D., Kegler, H., und Schenk, G.: Typen genetisch kontrollierter Virusresistenz der Pflanzen.	157
Sreenivasa, M. N., and Krishnaraj, P. U.: Synergistic interaction between VA mycorrhizal fungi and a phosphate solubilizing bacterium in chilli (<i>Capsicum annuum</i>).	126
Sreenivasa, M. N., Nirmalnath, P. J., and Kulkarni, S.: Interaction between VA-mycorrhizal fungi and <i>Sclerotium rolfsii</i> in chilli (<i>Capsicum annuum</i> L.).	509
Sreenivasa, M. N., s. Krishnaraj, P. U.	131
Stelzer, W., und Jacob, J.: Das Vorkommen von <i>Campylobacter</i> in einem Mittelgebirgsbach.	45
Stelzer, W., Jacob, J., Feuerpfeil, I., und Schulze, E.: Untersuchungen zum Vorkommen von Aeromonaden in einem Trinkwasserversorgungssystem.	231
Szegi, J., s. Vörös, I.	236
Targoński, Z.: Biotransformation of lignin-related aromatic compounds by <i>Pichia stipitis</i> Pignal.	244
Trovatelli, L. D., s. Canganella, F.	537
Turtura, G. C., and Minguzzi, A.: Microbiological research on soft drinks: Discolouring of natural flavoured products.	51
Vinz, M., s. Roth, P.	409
Vörös, I., and Szegi, J.: Studies on the colonization of recultivated mine spoils by endomycorrhizal fungi.	236
Warnock, D. W., und Richardson, M. D.: Fungal infection in the compromised patients.	B 22
Weise, I., s. Höflich, G.	378
Youssef, Y. A., El-Din, A. A. K., and Hassanein, S. M.: Occurrence of keratinolytic fungi and related dermatophytes in soils in Cairo, Egypt.	80
Youssef, K. A., s. Ghareib, M.	551
Zaspel, I.: Einfluß einer Saatgutbehandlung mit bakteriellen Antagonisten auf den Ertrag und den Befallsverlauf von <i>Gaeumannomyces graminis</i> an Weizen.	173
Zirletta, G., s. Canganella, F.	537

Name and Subject Index

Aeromonads	231	Cell wall degrading enzymes	35
<i>Aeschynomene</i>	445	Cellulose degradation	551
Agrochemicals	250	Cement dust of pea	418
Air spora	541	Chilli	126, 131
Alkali pretreatment	551	Chloramphenicol resistance	499
<i>Alternaria</i> mycotoxins	197, 207	Chromatographic methods	197
<i>Alternaria</i> species	207	Cleavage	483
Amino acids in plants	119	<i>Clostridium</i>	71
Aminoadipate-semialdehyde	65	CMC	477
Aminohydroxyadipate-semialdehyde	65	CM-cellulase	477
Amylase production	23	Combined inoculation	378
Antagonistic bacteria	173	Combined N	340
Antagonists	368	Copper	261
Antibacterial activity	71	<i>Cylindrocarpum destructans</i>	261
Apothecia formation	368	Cytokinin	319
Apple leaves	355		
Aquatic fungi	513	Deactivation kinetics	477
Aquatic invertebrates	459	Dependence on weather conditions	355
<i>Arxula adaminivorans</i>	225, 291	Dermatophytic fungi	80, 214
<i>Aspergillus alliaceus</i>	86	Desinfection	304
<i>Aspergillus amstelodami</i>	61	Detoxification	409
<i>Aspergillus niger</i>	15, 35, 447, 563	Diazotrophs	441
<i>Aspergillus ochraceus</i>	86	Diazotrophs nitrogen fixation	435
<i>Aspergillus repens</i>	61	Dicyandiamide	250
<i>Aspergillus sydowii</i>	551	Dinoterb	250
<i>Aspergillus terreus</i>	569	Discolouring	51, 409
Auxin	319	Drinking water supply	231
<i>Azospirillum</i>	340, 455		
<i>Azospirillum brasilense</i>	441	Ecotoxicological indicator	250
<i>Azospirillum</i> inoculation	119	Effects of sunlight	51
<i>Azotobacter</i>	112	ELISA-tests	319
		Emalgen 420	5
Bacillus	541	Endomycorrhizal fungi	236
Bacteria infection	92	Environmental conditions	368
Bacterial spray biofertilizers	435, 441	Enzyme, cellulolytic, pectolytic	557
Baits method	529	Enzyme — inhibition	35
Benomyl	329	Enzyme kinetic	297
Biodegradation	409	Epiphytic microorganisms	355
Biological activity	304	<i>Erwinia amylovora</i>	355
Biological control	345	Essential oils	214
Biotransformation	244	Ethanol	225
<i>Brevibacterium</i>	499	Extraction	197
Cadmium	261	Facultative anaerobic bacteria	537
<i>Campylobacter</i>	41, 45	Fatty acids	214
<i>Candida albicans</i>	65	Fecal pollution	41, 45
<i>Candida guilliermondii</i>	283	Fertilizer value	134
<i>Capsicum annuum</i>	509	Field Experiments	173, 192
Carbofuran	340	Free living bacteria	319
Carnation	345	Fungi	427, 513
Catechol	483	Fungistasis action	214
Cattle wastes	308	<i>Fusarium moniliforme</i>	557
Cell wall degradation	329	<i>Fusarium oxysporum</i>	405, 557
Cellulases	167, 427, 563	<i>Fusarium oxysporum</i> f. sp. <i>dianthi</i>	345

<i>Fusarium solani</i>	405	Paint film	427
		Pathway	483
<i>Gaeumannomyces graminis</i>	173	Pea	182, 378
<i>Galega officinalis</i>	103	Peat	304
Germination of conidia	261	Pectinases	15
Gibberellic acid	221	<i>Penicillium chrysogenum</i>	563
<i>Gibberella fujikuroi</i>	221	<i>Penicillium citrinum</i>	563
<i>Glomus macrocarpum</i>	447	Persistence	409
Glucosidase, β -	563	Pesticide	250
Glucoseisomerase	297	Phase distribution test	5
Growth stimulation	182, 378	Phenol	483
		Phosphate-release	134
Hemicellulase	563	Phosphate solubization	134
Herbicide	250	Phosphate-solubilizing bacterium	126, 270, 503
HPLC-method	319	Phyllosphere bacteria	435
Hydrophobicity	409	<i>Pichia stipitis</i>	244
		Process inhibition	308
Immobilization	15, 409	Promoter	499
Indole components	35	Protease activity	92
Inhibitory concentration	71	Protein metabolisms	92
		Protocatechuic acid	483
Keratinolytic fungi	80, 418, 529	<i>Pseudomonas solanacearum</i>	483
		<i>Pseudomonas</i> sp.	182
<i>Lactobacillus</i>	71	Qualitative resistance	157
Lead, inhibitory action	261	Quantitative resistance	157
Lignin related aromatic compounds	244		
Lipids	61	Rabbit	537
Lucerne green mass	192	Recultivation	236
Lupin-pea-oats-mixture	378	Red clover response	405
Lysine ϵ -dehydrogenase	65	Redox potential in soil	388
		Respiration	304
Microbial activity	388	<i>Rhizobia</i>	103, 378
Microbial methane formation	308	<i>Rhizobium meliloti</i>	192
Microwave	304	<i>Rhizobium sesbani</i>	112
Mine spoil	236	Rhizosphere bacteria	182
Mushroom <i>basidiomycetes</i>	400	Riboflavin	283
Mustard	182	Rice	340
Mycotoxin	197, 207	River water	45
		Rock phosphate	126, 134
<i>Neptunia</i>	455	Root colonization	131
Nitrification	250	Root rot resistance	405
Nitrogen deficiency	345	Rumen of calves, lambs	489
Nitrogen fertilizers	441		
Nitrogen fixation	340	Salt aggregation test	5
N_2 -fixing bacteria	503	Saprophytic fungi	418
N-transformation	388	<i>Sclerotinia sclerotiorum</i>	368
Nitrogenase	319	<i>Sclerotium rolfsii</i>	509
Nitrogenase activity	455	Screening	400
Nodule	455	Secondary metabolism	221
Nodule occupancy	192	Semisterila plant test	319
Nonionic surfactants	5	Slaughterhouse	513
		Soil bacteria	143
Ochratoxin	86	Soil fungi	23, 277
Oil radish	182	Spectroscopy	197
Oligotrophic microorganisms	143	Spore production	503
Oleophilic bacteria	5		

X

Standard substances	197	VAM-infection	447
Staphylococci	489	VAM-spores	447
Starch convention	225	Virus-host interactions	157
<i>Streptomyces phaeochromogenus</i>	297	Vesicle and arbuscule formation	447
Survival rate	182, 355	Vesicular-arbuscular mycorrhiza	503
Synergistic interaction	126		
		Waste water	41
Tannary sewage	513	Water activity	61
Thermophilic fungi	277	Wheat	182
Thermotolerant fungi	277		
Toxin production	207	<i>Xanthomonas campestris</i> pv. <i>campestris</i>	92, 167
Trehalase	291	Xerophilic fungi	61
Trypsin inhibitor	400	Xylanase	569
Types of virus resistance	157		
		Zinc	261
VAM fungi	126, 131, 236, 509	Zoosporic fungi	459



